Amendments to the Specification:

Please modify the paragraphs at page 7, lines 13-23 in the following manner:

(8) (7) a step for changing the value of Y, in the residual magnetic field curves drawn on the chart and in the range from where the value of X is zero to the strength of the applied gradient magnetic field pulse, to equalize it with the calculated value in step (2); and

(9) (8) a step for drawing the residual magnetic field response curve, in the residual magnetic field response curves drawn in the chart and in the opposite direction of the gradient magnetic field pulse being applied from where the value of X is zero, so that the value of Y varies from the calculated value in step (2) with predetermined gradient.

Please modify the paragraphs at page 10, lines 7-24 in the following manner:

(10) (9) a step for calculating the strength of the residual magnetic field being generated by the application of the gradient magnetic field based on the residual magnetic field response function being stored in the storage means upon the transmission of the information on the strength of the gradient magnetic field that is to be applied next from the storage means;

(11) (10) a step for calculating the strength of the correction magnetic field for correcting the residual magnetic field of the strength which was calculated as mentioned above;

(12) (11) a step for transmitting the residual magnetic field correction controlling signals for applying the correction magnetic field which was calculated as mentioned above, to the correction magnetic field generation means; and

(13) (12) a step for calculating and updating the variance of the residual magnetic field response function caused by the application of the gradient magnetic field, and for

storing the updated residual magnetic field response function to the storage means.

Please modify the paragraphs at page 12, line 24 through page 13, line 18 in the following manner:

(14) (13) a step for calculating the strength of the residual magnetic field being generated by the application of the gradient magnetic field, on the basis of the residual magnetic field response function stored in the storage means, upon the transmission of the information on the strength of the gradient magnetic field that is to be applied next from the control means;

(15) (14) a step for calculating how much variance is needed for the strength of the gradient magnetic field to be applied for correcting the residual magnetic field of which the strength was calculated previously;

(16) (15) a step for transmitting the gradient magnetic field correction controlling signals for the application of the gradient magnetic field in which the strength was varied previously, to the gradient magnetic field generation means; and

(17) (16) a step for calculating and updating the variance of the residual magnetic field response function by application of the gradient magnetic field, and for storing the updated residual magnetic field response function in the storage means.